THE NEW FISHERY... DIVERSE AND DYNAMIC.

At a Glance

In 1997, the province's fish export value was approximately $575 million, and is projected to surpass $600 million in 1998.

At its peak in 1997, the industry employed 20,800: 10,300 fish harvesters and 10,500 in the processing sector.

For only the second time in our history, our fishing industry had a landed value of $300 million in 1997. Total landings exceeded

Take a look at what we're doing.

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Despite economic diversification, the fishing industry of Newfoundland and Labrador continues to be one of the primary contributors to our province's economy. In fact, our fishing industry is growing! The fishery is evolving as a more viable and stable industry, and the Department of Fisheries and Aquaculture is a leader in making that happen! Efforts are focussed on quality assurance, fisheries development, aquaculture, market promotion, new product

200,000 metric tonnes for the first time since 1993. Now that's a lot of fish!

More than forty species of fish are commercially harvested from Newfoundland and Labrador's waters!

Shellfish, not groundfish, now dominate the industry. Since 1988, landings of valuable shellfish (primarily crab and shrimp) have more than tripled.

The value of the new inshore northern shrimp is expected to reach $100 million in 1998.

Inshore vessels took part in the northern shrimp for the first time in 1997, and landed an estimated 6,000 metric tonnes worth $8.6

development, and new market opportunities.

QUALITY ASSURANCE INITIATIVES

Newfoundland and Labrador's fishing industry is focussed on building the province's reputation for high quality seafood products in work markets. Emphasis is on promoting quality assurance practices in the industry-which means ensuring that fish is properly harvested, transported, and processed.

In consultation with industry, the Department has implemented quality assurance measures to ensure that producing top-quality fish products is a priority form the time seafood is harvested, to the time it is ready for the consumer's table.

These initiatives are enforced by fisheries inspectors through regular inspections around the province to secure our competitive position in the global marketplace.

FISH PRICE TASK FORCE REPORT

A Task Force, appointed in 1997, investigated problems associated with fish price negotiations, quality, and marketing. They made several recommendations including changing the present collective bargaining system to a pricing structure that recognizes and rewards high quality. This change would also lessen the delays in opening various fisheries. A fish auction system and a price-to-market formula were suggested. Pilot projects are underway in 1998 to evaluate the recommendations as a means to further strengthen the fishing industry. To date, these projects have met with very positive results.

THE NEW FISHERY... DIVERSE AND DYNAMIC

The world seafood market is changing and the Newfoundland and Labrador fishing industry is changing to meet the new demands! The Department of Fisheries and Aquaculture is working closely with the fishing industry to diversify and utilize other species, creating new opportunities!

FISHERIES DEVELOPMENT
Harvesting, Processing and Marketing

The Department directs its efforts on diversifying the fishing industry and is encouraging harvesters and processors to take advantage of other species. Research and development efforts are continuing in harvesting, processing and marketing these resources. Information is made available to industry on a variety of new resource opportunities including "new" crab species, shrimp, sea urchin, seaweed, whelk, seals, and sea cucumber, as well as on by-products, and value-added processing. Projects involve research and experimentation with new harvesting and processing techniques, and refinement of traditional methods. These initiatives will increase the value of fish exports and will also contribute to increased employment in the industry.

The Department assists processors in applying research and new production

million. Landings could reach approximately 30,000 tonnes in 1998, with a landed value of approximately $50 million.

In 1997, 11,000 tonnes if Icelandic scallops were landed, making Newfoundland and Labrador the world's leading producer.

The revitalized seal industry provides income for about 3,000 sealers and several hundred plant workers, and has an export value of $20 million.

Fish Facts! Did you know...?

...Seaweed can be found in: dried food, health-food, toothpaste, lotions, inks and dyes, high-quality paper,

technology to process these developing species, and to market fish products. Market research, development, and promotion, marketing seminars, and trade missions are critical to increase seafood exports, to meet market expectations, and to compete with our competitors in global markets.

Some Examples of Success

New Crab Species Development

The traditional snow crab fishery has been the cornerstone of the industry since the groundfish moratoria. In 1998, the export value of this resource will exceed $200 million.

Over the past several years the Department of Fisheries and Aquaculture has actively promoted the development of new crab species such as Atlantic king crab, red Atlantic crab, toad crab, and rock crab. The latter two species in particular are becoming a new source of income for many small boat harvesters in certain areas of the province.

The processing sector has responded to these new opportunities by investing in new processing capacity and by identifying new market opportunities.

Inshore Northern Shrimp Harvest

Approximately 85 inshore vessels participated in the northern shrimp harvest in 1997, most of which has formerly depended on groundfish. With the increased quota in 1998, the number of licences is expected to rise to 200. The department, in conjunction with industry, actively promoted an inshore vessel presence in this fishery.

The private sector has shown its confidence in this fishery, and has invested more than $50 million in plant expansions or conversions to take advantage of this new opportunity.

We are continuing developmental work on inshore shrimp harvesting using beam trawls and shrimp pots around the province. A comprehensive exploratory fishery is also in progress. This initiative is primarily concentrated on the small vessel sector with beam trawl trials having met with promising results to date.

Seal Industry Development

New products such as Omega-3 seal oil capsules, sausages, salami and pepperoni are now being produced as a result of considerable research and development, and reflect a well-defined full utilization strategy for the industry.

In 1998, the industry experienced further expansion as approximately 280,000 animals were harvested. In response to this growth, industry has also invested in the latest tanning technology producing top-of-the-line tanned seal skins.

Sea Urchins

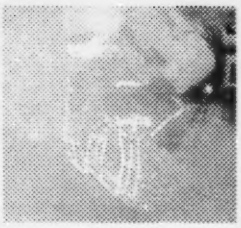
welding rods, and in food products such as ketchup, mayonnaise, and other sauces, soups, chocolate milk, and ice cream.

...Crab also has many industrial applications? Substances such as chitin and chitosan, extracted from crab shells, have enormous potential in the pharmaceutical industry and for waste water treatment.

...Shrimp changes their sex from male to female mid-way through their life cycle.

...The blood of wolffish can be used in the transportation of organs to preserve them for transplant.

...Fish skins, especially eel, cod, and wolffish, are valuable as leather in the



Sea urchins roe, or uni, is a kind of Japanese caviar which can fetch harvesters a good price. Sea urchins are harvested commercially by diving in shallow water.

Most activity occurs on the northeast coast, but activity is expanding to other areas. In 1998 for example, the plant in Red Bay, Labrador is processing sea urchins - the first time the plant has operated in seven years!

In 1997-98, the province's sea urchin industry employed approximately 150 to 200 harvesters, and 200 plant workers to process the roe.

SIGNIFICANT DEVELOPMENT OPPORTUNITIES

Much developmental work has been done on other under-utilized species such as whelk, male capelin, seaweed, sea cucumbers, and by-products from such species as crab and shrimp. These initiatives are still in the developmental stage, and offer further development opportunities.

Whelk

A large resource of whelk (also known as sea snails) is found in areas such as the Great Northern Peninsula and in the Strait of Belle Isle where considerable activity occurred in 1997.

An exploratory fishery was carried out on whelk in the Conception Bay areas to improve the catch rates by experimenting with various types of pots. The Department is providing whelk pots to harvesters for more exploratory work.

New processing equipment has been introduced into the industry. Market development work is also being undertaken in conjunction with industry.

Seaweed

Traditionally used for animal feed and fertilizer in Newfoundland and Labrador, seaweed has pharmaceutical, and cosmetic applications.

In 1997, exploratory work was completed in the Bay of Islands, along the South Coast, and on the southern Avalon Peninsula to identify and quantify the seaweed resource in those areas. The test samples of various products have been well-received. Further exploratory work is being done in other areas such as the Labrador Straits.

Plants in Ramea and Isle aux Morts are processing and selling seaweed products.

Male Capelin, Crab and Shrimp By-products

The Department is working with several processors to develop new products from by-products and fish offal, namely male capelin, crab, and shrimp. These include chitosan from shellfish waste for use in pharmaceutical and health applications, pet treats from male capelin, and aquaculture feeds for local fish farms.

To encourage full utilization of male capelin, there is a licencing requirement

fashion industry.

prohibiting any dumping of this species.

THE NEW LICENCING POLICIES

In 1997, the Department of Fisheries and Aquaculture, through consultation with the fishing industry, reviewed and revised its processing licencing policies.

The new licencing policies will promote a privately financed fish processing sector which is stable and competitive in the world market. The policy focuses on a core of approximately 70 plants which now have greater flexibility to process a variety of species, thus enhancing their prospects for long-term viability. These multi-species facilities will ensure a regional balance in processing and employment opportunities throughout the province. Non-core plants will also continue to play an important role in the industry.

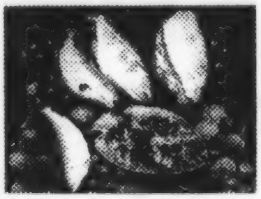
PROFESSIONAL FISH HARVESTERS' CERTIFICATION BOARD
The First Province to Recognize Fishing as a Profession!

Newfoundland and Labrador became the first province in Canada to recognize fishing as a profession. The Department and the harvesting sector collaborated to establish the Professional Fish Harvesters Certification Board in 1997 through the enactment of special legislation in this area.

Under this legislation, the Board sets qualifying standards and recognizes the skills and practical experience required to become a Professional Fish Harvester. They bestowed professional status on fish harvesters with a long-term attachment to the fishing industry, through a grandfathering process. The certification process is now made up of three different levels: Apprentice, Level 1, and Level 2.

The Board has currently registered and certified approximately 16,000 fish harvesters in the province, including approximately 9,500 fish harvesters certified with Level 2.

AQUACULTURE



Aquaculture is expanding rapidly in Newfoundland and Labrador! Blue mussels, steelhead trout, and Atlantic salmon have been produced commercially for the past 10 years. The Department has played a key role in this industry's development.

Aquaculture Facts

In 1997, the total export value for aquaculture is estimated at approximately $8 million compared to $6.7 million in 1996.

The Department is responsible for aquaculture licences, and provides a one-stop service for all provincial and federal licences and permits needed to conduct aquaculture in the province. DFA also provides many extension services including veterinary services, engineering services, research and development information, technology transfer services, and technical advice and assistance.

The future of the aquaculture industry is very positive as its potential is beginning to be realized. Several farmed species such as steelhead trout, Atlantic salmon, and blue mussels have become commercially viable. Management plans are being developed to allow orderly development that recognizes the rights of aquaculturists and other water resource users. Research continues on mussels, scallops, codfish, witch flounder, and live feed enrichment for "start feeding" of

In Newfoundland and Labrador, the aquaculture industry employed more than 450 people in 1997.

There were 231 licenced aquaculture site in 1997: 65 commercial shellfish licences (blue mussels and scallops), and 55 commercial finfish licences (steelhead trout, Atlantic salmon, rainbow trout, arctic char, and cod).

Our blue mussels are among the best quality in the world! In 1997, more than 750 tonnes were produced in this province, with an export value of approximately $1.6 million. Production is projected to increase to 5,000 tonnes by the year 2000.

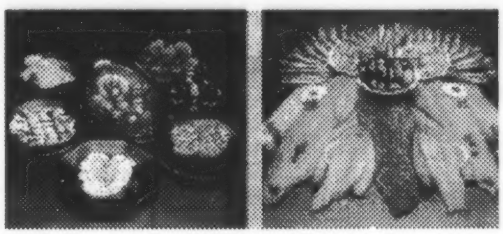
A new $5

halibut larvae. There is an increasing interest in halibut farming in the province as the world demand for this premium product is high and the wild supply is low. Interest in cod farming is also increasing.

The Department is currently working with the Newfoundland Salmonid Growers Association (NAGA) to develop, and evaluate a strain of salmonid brood stock (eggs) for commercialization in Bay d'Espoir.

Construction of new aquaculture facilities in Newfoundland and Labrador include a new Arctic char facility in Daniels Harbour, a new teaching at the Marine Institute of Memorial University of Newfoundland, and the Aquaculture Research Facility at Memorial University's Ocean Sciences Centre in Logy Bay, near St. John's. The latter two have been funded under the Aquaculture Component of the Canada/Newfoundland Economic Renewal Agreement (ACERA). These projects incorporate the latest technology and are critical to the industry's expansion.

LOOK AT WHAT'S PRODUCED RIGHT HERE IN NEWFOUNDLAND AND LABRADOR



Some Species Harvested

Crab	Herring	Eels	Sea urchin
Shrimp	Cod	Redfish	Steelhead trout
Lobster	Halibut	Hake	Flounder
Mussels	Skate	Turbot	Lumpfish
Scallops	Seaweed	Capelin	Atlantic salmon
Squid	Whelk	Mackerel	

Some Secondary Products

Seafood entrees	Seafood quiches
Fish cakes	Fish and brewis
Breaded fish products	Artificial crab
Seafood au gratins	Surimi-based crab products
Seafood crepes	Marinated herring
Mussel Salad	Shrimp cocktail, shrimp in seafood sauce
Seal products such as prime meat cuts, sausages, salami, and pepperoni; seal oil capsules; and	Smoked salmon, kippers, herring, and mussels

seal fur and leather products

million-Aquaculture Working Capital Fund for the shellfish sector will help aquaculturists to commercialize their operations.

Bay d'Espoir is the heart of the island's salmonid aquaculture industry.

Newfoundland and Labrador is the largest producer of steelhead trout in North America!

Farmed cod presents a new and exciting opportunity! Farmed cod can double its weight in 100 days. Up to 20 new cod farming licences have been approved in 1998!

Newfoundland and Labrador has a world-class aquaculture research capability.

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR

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